



(11)

EP 2 749 194 A3

(12)

## EUROPEAN PATENT APPLICATION

(88) Date of publication A3:  
14.03.2018 Bulletin 2018/11

(51) Int Cl.:  
**A47L 9/28 (2006.01)**      **A47L 9/04 (2006.01)**

(43) Date of publication A2:  
02.07.2014 Bulletin 2014/27

(21) Application number: 13199543.3

(22) Date of filing: 24.12.2013

(84) Designated Contracting States:  
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB  
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO  
PL PT RO RS SE SI SK SM TR**

Designated Extension States:

**BA ME**

(30) Priority: 26.12.2012 KR 20120153102

(71) Applicant: **LG Electronics, Inc.**  
**Seoul 150-721 (KR)**

(72) Inventors:

- **Kim, Siyong**  
**Gyeongsangnam-do 641-711 (KR)**

- **Sung, Jihoon**  
**Gyeongsangnam-do 641-711 (KR)**
- **Baek, Ohhyun**  
**Gyeongsangnam-do 641-711 (KR)**

(74) Representative: **Morrall, Jonathan Ian McLachlan et al**  
**Kilburn & Strode LLP**  
**Lacon London**  
**84 Theobalds Road**  
**London WC1X 8NL (GB)**

(54) **Automatic cleaner**

(57) Provided is an automatic cleaner (10). The automatic cleaner (10) includes a casing (110) having a suction hole (112), a main brush (120) disposed on a side of the suction hole (112) within the casing (110), a first driving part (150) arranged to rotate the main brush (120), an operable member (210) movably disposed on the casing (110), a second driving part (230) arranged to generate power for moving the operable member (210), a side brush (220) rotatably disposed on the operable member (210) to receive power of the first driving part (150), and a control part (170) arranged to control the first and second driving parts (150, 230).

Fig. 2

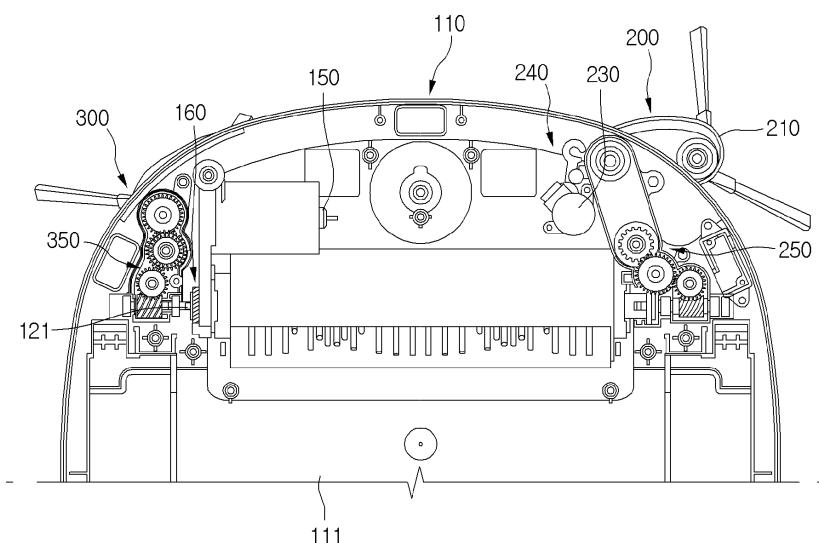
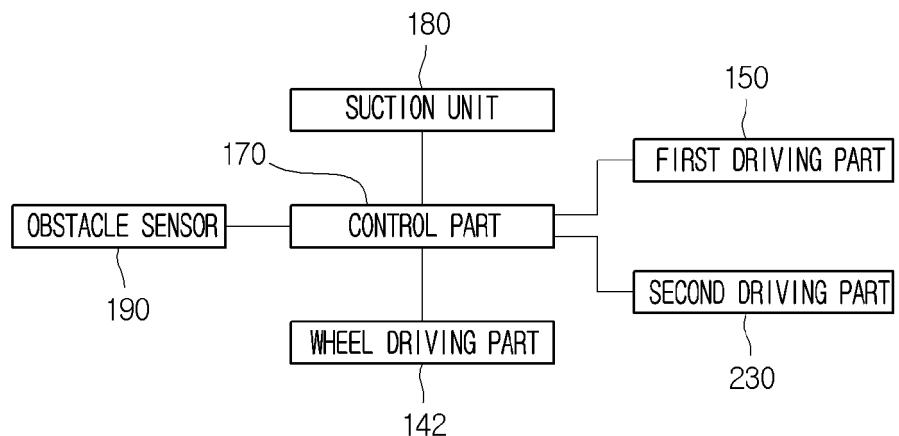


Fig.3





## EUROPEAN SEARCH REPORT

Application Number

EP 13 19 9543

5

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
10 A	JP 2005 006857 A (TOSHIBA TEC KK) 13 January 2005 (2005-01-13) * paragraph [0052] - paragraph [0081]; figures *	1-15	INV. A47L9/28 A47L9/04
15 A	JP 2006 087507 A (SANYO ELECTRIC CO) 6 April 2006 (2006-04-06) * paragraph [0022] - paragraph [0043]; figures 3-6 *	1-15	
20 A	EP 2 417 892 A1 (LG ELECTRONICS INC [KR]) 15 February 2012 (2012-02-15) * paragraph [0018] - paragraph [0056]; figures 1,2,6-9 *	1-15	
25			
30			TECHNICAL FIELDS SEARCHED (IPC)
35			A47L
40			
45			
50 1	The present search report has been drawn up for all claims		
55	Place of search Munich	Date of completion of the search 5 February 2018	Examiner Masset, Markus
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			
T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document			

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 13 19 9543

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

05-02-2018

10	Patent document cited in search report	Publication date		Patent family member(s)	Publication date
	JP 2005006857 A	13-01-2005	JP	4097264 B2	11-06-2008
			JP	2005006857 A	13-01-2005
15	JP 2006087507 A	06-04-2006	NONE		
	EP 2417892 A1	15-02-2012	EP	2417892 A1	15-02-2012
			EP	3053502 A1	10-08-2016
			ES	2582006 T3	08-09-2016
20			KR	20120024565 A	14-03-2012
			US	2012090133 A1	19-04-2012
			WO	2011002113 A1	06-01-2011
25					
30					
35					
40					
45					
50					
55					